

Welcome and Thanks for Participating “Composites Manufacturing & Repair”

Don Seger
JDMAG/JTEG

Administrative Remarks

- **Phone Messages – 405-947-7681**
- **Meeting**
 - **Tuesday & Wednesday 0800 – 1600**
 - **Depot Tour – Thursday – 0830 – 1130**
- **Lunch Break – 1130 - 1300**
- **After Hours JTEG Mixer – 1800-2000**
 - **Chisholm Club**

Critiques Sheets

Major Part of the JTEG Continues Improvement Process

- **We want to know:**
 - **Was the briefing beneficial to your organization?**
 - **Will you use this information or forward the information where it is needed?**
 - **How can we help your installation?**
 - **Future topics?**
 - **Comments?**

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Joint Technology Exchange Group (JTEG)

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Background

- **JDMAG Technology Exchange Mission:**
“Conduct a Depot Maintenance Technology Information Evaluation and Exchange Program Focused on Maximizing Interservice Application Potential”
- **JDMAG’s Primary Vehicle for Accomplishing this Mission is the Joint Technology Exchange Group (JTEG)**

JTEG Principals

JDMAG	Col Pamela Carter	JTEG Chair	DSN 986-2782
Army	Dan McDavid	Army Materiel Command	DSN 767-9289
NAVAIR	Bob King	NADEP Cherry Point	DSN 451-7841
NAVSEA	Kurt Doehnert	NAVSEA Code 04X2E	DSN 332-4088
Air Force	Mike McMillan	AFMC/ENB	DSN 787-6484
Marine Corps	Durwood Pollock	MCLB Albany	DSN 567-6706
DLA	Ron Harris	DSCR/JHA	DSN 695-6476
USCG	Mike Hanson	Aviation Repair Facility	(252)335-6451

JTEG Mission & Functions

- **Mission: To Improve Coordination in the Introduction of New Technology, Processes, and Equipment into DoD Depot Maintenance Activities. Seek Ways to Avoid Unnecessary Duplication in the Area of Technology Improvement.**
- **Functions:**
 - **Identify Depot Maintenance Requirements for New and Emerging Technology, Processes and Equipment**
 - **Review Current Technology Projects, Maintain Status of New Technology Developments and Facilitate Coordination Among the Services to Minimize Duplication and Associated Costs**
 - **Identify Ways to Improve the Capability or Efficiency of the Depot Maintenance Community**
 - **Recommend, as Appropriate, a Lead Service to Develop Necessary Prototypes**

Information Exchange

- **Technology Exchange Meetings**
- **JDMAG/JTEG Web Page**
 - **Technology Projects Information Database**
 - **Technology Presentations**
 - **The Joint Technology Exchange Report**
- **Special Technology Studies & Taskings**

INTERFACES

- JTEG interfaces with the following activities to transfer technology between the four military Services:
- Service Depots and Logistics Headquarters
 - National Center for Manufacturing Science (NCMS)/
Commercial Technologies for Maintenance Activities (CTMA)
 - Sustainment Readiness Working Group (SRWG)
 - Joint Council on Aging Aircraft (JCAA)
 - Joint Acquisition & Sustainment Pollution Prevention Activity (JASPPA)
 - Air Force Propulsion Environmental Working Group (PEWG)
 - Control Technology Corporation (CTC) & the National Defense Center for Environmental Excellence (NDCEE)
 - Department of Energy (DOE)
 - Environmental Protection Agency (EPA)
 - National Aeronautics and Space Administration (NASA)
 - Federal Laboratories - Argonne, Pacific Northwest, Sandia
 - Academia - AFIT, PennState, Georgia Tech, University of Delaware
 - Commercial Industry - Boeing, Texas Instruments, Hughes Aerospace, Pratt-Whitney, Lockheed-Martin, United Technologies, 3M Company

JTEG PROJECT GROUPS

- **Laser Applications**
- **Machining, Metalworking, and Fabrication**
- **Electronics**
- **Surface Finishing**
- **Cleaning and Stripping**
- **Corrosion Control**
- **Plating**
- **Composites**
- **Environmental/Hazmat**
- **Test and Evaluation**
- **Quality and Inspection Processes**
- **Best Business Practices**
- **Improved Maintenance Processes**

JTEG PROJECTS

TITLE: Industrial Wastewater Reduction Project at NADEP Cherry Point

NARRATIVE: The largest waste stream component at NADEP CP was sludge from the industrial wastewater treatment plant (IWTP) and process applications. Sludge dewatering could reduce the volume disposed by as much as 90%. Sludge is expensive to discard. In 1998, NADEP CP produced 1.46M pounds of material, costing over \$300,000 to discard. Largest component was hazardous (heavy metal) sludge. NADEP CP is currently evaluating better ways to produce better, cheaper, or less, sludge, to include combining new wastewater and sludge treatment methods, thereby reducing the solid and hazardous waste streams to generate a savings of \$150K/year.

PARTICIPANTS: NADEP Cherry Point, Joe Freemon, DSN 451-7647


STATUS: Closed

Nov 00 The energy savings, though significant, were insignificant compared to the associated savings achieved in regards to water usage and conservation impact.

Sep 01 Experienced some minor problems with water reduction equipment.

Mar 02 Equipment problems corrected, system functional and operational. An estimated \$1.8M cost savings is realized with this IWTP Reduction Project. Savings is based on reduced water consumption and disposal at \$12 per 1000 gallons, 300 gallons per minute, 24hours per day, 7 days per week. This project was very successful and is closed.

JDMAG WEB SITE

 <p>Next JTEG Meeting: Portsmouth Naval Shipyard "Corrosion Control and Surface Finishing Technologies" 16-18 July 2002</p>		
ABOUT US	PRODUCTS	POPULAR ITEMS
<ul style="list-style-type: none"> ▶ Directions to JDMAG ▶ History - Time Line ▶ Mission Briefing ▶ Mission Statement ▶ JDMAG Charter* ▶ Operating Divisions and Functions ▶ Organizational Structure ▶ Phone Numbers/Email** 	<ul style="list-style-type: none"> ▶ Public-Private Partnerships Report* ▶ Cost Comparability Handbook* ▶ FY01-07 Depot Maint. Business Profile ▶ 2001 Depot Profiles** ▶ DSOR Acquisition Guide* ▶ Joint Depot Maintenance Circular ▶ Joint Service Best Business Practices ▶ MILCON Annual Summary ▶ More JDMAG Products 	<ul style="list-style-type: none"> ▶ Depot Facts Pack ▶ Depot Maintenance Calendars ▶ DMISA Improvement Initiative ▶ Joint Training Opportunities ▶ Joint Depot Maint. Directory** ▶ Joint Depot Maint. Regulation* ▶ JG-DM Strategic Plan ▶ Joint Logistics Commanders Forms** ▶ Other Department of Defense Sites
JOINT TECHNOLOGY EXCHANGE GROUP		CONFERENCES & SYMPOSIUMS
<ul style="list-style-type: none"> ▶ 21st Century Depots NEW ▶ Customer Satisfaction Survey NEW ▶ Depot Maintenance Technologies ▶ Joint Paint Removal Studies ▶ Maintenance & Logistics Calendar* ▶ Mission 	<ul style="list-style-type: none"> ▶ Newsletter ▶ Quarterly Meetings ▶ Service Principals ▶ Technology Needs, CY2001* ▶ Technology Related Web Sites 	<ul style="list-style-type: none"> ▶ DOD Maintenance Symposium ▶ Joint Service Depot Maint. Conference

www.jdmag.wpafb.af.mil

Technology Needs

- **It will help us help you**
 - ❖ **Identify opportunities for joint developmental projects**
 - **Facilitates common requirements and joint partnerships.**
 - **Identifies shared opportunities for all the depot maintenance community.**
 - **Reduces duplication of efforts within the entire depot maintenance community.**
 - **Reduces individual activity R&D efforts and risk.**
 - **Reduces individual activity validation and implementation efforts.**
 - **Reduces individual activity costs and overall weapon system life cycle costs.**
 - ❖ **Identify topics & speakers for meetings**

Depot needs for Composite:

- **Ceramic Armors (Methods for working and repair)**
- **Composite Materials (strength, weight reduction, methods for working and repair)**
- **Advanced Smart Sensors for Composite Repair Tracking**
- **Advanced Composite Replacement of Shelter Materials**
- **Low Cost Shelter Components with EMI/EMP Shielding**
- **Low Cost Integral Wear Surfaces for Shelter Floors**
- **Weight Reduction (Recapitalization)**
- **Composite Armor and Aircraft Repair Tech. (e.g., FCS, Boeing and Aircraft Repair) - Multiple Bond Line Repair**

Depot needs for Composite:

- **Non-Destructive Evaluation and Inspection Criteria**
- **Composite Degradation: New Processes and Materials studies to Repair**
- **Joining of Composites (Similar and Dissimilar)**
- **Parts Tracking for Composites**
- **Low Observables (LO) Capabilities at Depots**
- **Repair, Paint, Test/Verify**
- **Predictive Analysis and Maintenance Capabilities**
- **Repair Methods for Joint Strike Fighter (Unique Issues)**
- **Effort and Handling Reduction via Automation in Depots**

Depot Solutions for Composite:

Thick Composite Structural Repair (>2 inches thick)

- **(Future combat systems and DDX—future naval combatants)**
- **Multiple Functionality Structural Composites**
- **Multiple Bond Lines**
- **Real Time Cure Knowledge**
- **Innovative Processes/Tooling (VARTM/liquid molding)**
- **Preform Processing/Handling**
- **Interested Participants: United Defense, General Dynamics Land Systems, Boeing (FCS System Integrator with SAIC), Northrop/Grumman, Bath Iron Works, Army/Navy ManTech, AvPro, Siemens Composites, Anniston Army Depot, University of Delaware- Center for Composite Materials (CCM), SCRA – Navy ManTech**

Depot Solutions for Composite:

Overhaul and Repair Using Composites

- **Material Substitution**
- **Low Temperature Cure**
- **Low Cost Tooling**
- **Real Time Process Control**
 - **Integrate NDE Technologies into Process Controls**
 - **Repair Design Analysis (process)**
 - **Inspection (NDI)**
 - **Modification Process**
 - **Paint Removal**
 - **Certification**
- **Interested Participants: Advance Processing Technology, Boeing, Sikorsky, Lastertronics, Cherry Point NADEP, OO-ALC, CCAD, GE Engines**

We Need Your Help

- **This program is effective when information exchange facilitates informed technology insertion**
- **We have increased the priority assigned to this program**
- **Our increased efforts will be fruitless without your support**
- **Sign-up for JTEG Information Exchange**
- **What can we do to help you?**

UPCOMING MEETINGS

Annual CTMA/JTEG/JCAA/SRWG Sustainment Conference
"A Practical Roadmap to Manufacturing and Repair"
30 March through 1 April 2004
Emory Conference Center Hotel, Atlanta, GA

Joint Technology Exchange Group
July 2004
Naval Surface Warfare Center (NSWC)
Crane, Indiana

Joint Technology Exchange Group
November 2004
Naval Air Depot / Marine Corps Air Station,
Cherry Point, NC

Maintenance & Logistics Calendar

- **January 26-29, 2004,**
The Annual Reliability and Maintainability Symposium (RAMS)
"50 Years of Success -The Challenge of Emerging Technologies"
Los Angeles Airport Marriott; Los Angeles, CA
<http://www.rams.org/>
- **February 01-03, 2004**
Tactical Wheeled Vehicles, Monterey Conf. Center/DoubleTree,
Monterey, CA
POC: adekleine@ndia.org

Maintenance & Logistics Calendar

- **March 01-04, 2004**
20th Annual National Logistics Conference & Exhib.,
Nugget Hotel, Sparks, NV
POC: dkhan@ndia.org
- **March 01-04**
Test & Evaluation Conference & Exhibition,
Nugget Hotel, Sparks, NV
POC: dkhan@ndia.org
- **February 24-26, 2004**
APEX / IPC Printed Circuits Expo
Anaheim, Ca
www.goapex.org



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